

Minutes of the Technical Advisory Committee Meeting
March 5, 2003
Revised March 29, 2003 (Revisions are underlined)

Members present:	Roger Thompson	Bernie Chenette
	Rodney Pingree	Gary Fern
	Brad Aldrich	Gerry Kittle
	Allison Lowry	Gail Center
	Phil Dechert	Spencer Harris
	Craig Heindel	Barb Willis

Others attending:	Frank O'Brien	Marilyn Davis
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Scheduled meetings:

March 18, 2003 Well Driller's Subcommittee 11AM Water Supply
Conference Room

March 18, 2003 1-4 PM 100 Stanley Hall

April 1, 2003 1-4 PM 100 Stanley Hall

April 15, 2003 1-4 PM Skylight Conference Room

April 29, 2003 1-4 PM Secretary' Conf. Rm. Osgood Building

Review of Agenda -

The agenda was reviewed and accepted as proposed.

Review of Minutes -

The minutes of the February 18, 2003 meeting were reviewed. Gary asked about the comments on use of less exact specifications in the section on Plan Revisions vs Certification. Roger explained that this meant not using a number, such as an invert elevation at a manhole, to 3 decimal places unless that level of accuracy was absolutely necessary. Brad noted that the word improved at the end of the first sentence in that section should be approved and this will be corrected.

Legislative Update –

Roger outlined the current legislative proposals that have been filed as bills to date. One bill that proposes to extend the buildout period from November 1, 2002 to November 1, 2004 has passed the House Natural Resources Committee and is scheduled for floor work next week. There are two other bills, that between them, propose to extend the date,

change the engineer's certification language, make town permits valid, and recreate the homestead exemption. Another bill has been introduced that would reopen the 10 acre exemption permanently. It seems likely that some extension of the buildout period could pass the House. It is not clear if any other changes will. The agency has not staked out a position on any of these, but will likely be neutral on the extension to November 1, 2004. Roger also mentioned a bill that would prohibit the Health Department from requiring toilets for restaurants open less than 6 months with outdoor seating of 16 or less seats. Gail mentioned that the Health Department was following a bill on requiring water testing for all rented units and one on water testing on all single family homes at the time of sale. If the testing occurs the Health Department would like the Water Supply Division to keep the test results with the well logs, which Rodney said the Water Supply Division would support. The Health Department position will be neutral on these bills. Roger said that if this passed it would make sense to require testing of all wells when they are drilled. Gail agreed but noted that they need to be in use in order to get a good test and that collecting a sample at the time of drilling would not be sufficient. In talking about the water testing the committee learned that fluoride occurs frequently enough that the Health Department recommends testing prior to using fluoride supplements. In one well the natural fluoride level exceeded the MCL.

Well Locations-

Spencer raised some issues about GPS locations for wells. He asked if it made sense to have the locations recorded after the well is drilled with the well drillers doing this work, instead of as part of the application process. Roger noted the issues related to getting compliance on this type of work done after the fact. Bernie and Craig noted that the proposed locations need to be protected and so it was important to get that information for the proposed well sites. Well drillers take a GPS reading upon completion of the well.

Rules for designers who are not professional engineers –

Gary reviewed the results of the subcommittee's discussion. The subcommittee decided that with a 300' length limitation and the 1350 GPD limit, that non-engineers could probably handle gravity connections to municipal systems. The subcommittee noted that most municipalities also were keeping track of this work and had required design specifications. The subcommittee noted that pump connections to force mains would need further discussion, and that there had been no comments about water system design based on fixture unit counts.

The committee reviewed the issue of whether non-engineers should design connections using pump stations. Spencer said he thought non-engineers could do this work, as it was very similar to designing the pump stations for mound systems. Roger and Gary noted that connections to force mains, as opposed to force main connections into a gravity sewer, are fairly complex. Craig asked why the 300' limit had been suggested. Gerry noted that in general collection sewers have manholes every 300'. Gary and Brad noted that forcemain connections into to a gravity sewer should be made at a manhole, a design

requirement used by both engineers and non-engineers. Roger asked if non-engineers could do collection sewers, noting that the design flow would limit this to 3 houses.

At this point the committee started a point by point discussion and decision process.

1. Can a non-engineer design a pumping system that will connect to a gravity sewer? The consensus was yes. The system is similar to what non-engineers already do for mound systems.
2. Can a non-engineer design a connection into a municipal force main? The consensus was no. There are potentially complex calculations when connecting multiple pumps to a single force main. There are relatively few small connections into a force main.
3. Should there be a limit to the length of a building sewer connection to a municipal system that can be designed by a non-engineer? The consensus was no. Manholes are not required, though cleanouts are. On-site systems are often more than 300' from the house and can already be designed by non-engineers.
4. Can a non-engineer design a collection sewer, with collection sewer defined as connecting more than one house or building into one pipe prior to connection to the municipal system? The consensus was no. Most municipalities already want each building to be separately connected and some collection sewers can have complex hydraulics.
5. Can a non-engineer design a single pipe water line connection to a municipal system that will serve only one building? The consensus was yes. Design flows are limited to 1350 GPD and the municipality usually oversees the tapping into the water line.
6. Can a non-engineer design a water line connection to a municipal system that will serve more than one building or that will include a fire hydrant? The consensus was no. Maintaining fire flows can involve significant calculations or testing and have major implications for the municipal system.
7. Can a non-engineer design a water system that will share one well between two or three houses? The consensus was yes. These are relatively simple systems when gravity storage tanks are not required.
8. Can a non-engineer design a gravity storage tank? The majority opinion was no. There are many considerations related to use of materials, tank coatings, controls, and safety features.

Roger will take this information and update the draft revisions to the designer's rules for further consideration by the committee.

Model Sewage Ordinance-

Roger reviewed the draft ordinance briefly. Anne Whiteley is reviewing the draft. Roger asked for comments after the committee members have a chance to review the document with a goal of completing work next week. Bernie asked if the ordinance could say it regulates water systems as well. Roger will check this out. Spencer wanted to know if towns could just change dates in their ordinance. A town would need to go through the ordinance adoption process in order to make that kind of change. Brad asked if the ordinance could require using the 2002 rules as the basis of the ordinance and then modify the requirements. The statute specifies that towns can choose either the 1996 rules or the 2002 rules.

Innovative/Alternative Systems-

Frank gave a short update. Frank met with Dave Pressby about the Enviroseptic Pipe. Dave is asking for a reduction in area based on achieving a 30/30 BOD/TSS treatment level and will be submitting information he believes supports his case. Dave is also asking for use of serial distribution and a waiver from the requirement for pressure distribution in mound and at-grade systems. The Enviroseptic Pipe is bedded in sand and the current approval for Vermont has each pipe in a three foot wide trench backfilled with sand. Roger noted that there are several thousand of these systems installed in New Hampshire and the regulators feel they are working well. Rodney noted that there are a lot of sands and gravels in New Hampshire and lots more tills in Vermont and this issue should be considered as part of any decision. Craig agreed with this. Gerry said that there had been one of these systems installed in Colchester that had failed after a couple of years, but the reasons for the failure were not determined. Frank also attended his first NEIWPCC meeting.

Feedback-

Rodney noted that a couple of mobile home parks have run out of water this year either because the tenants had left the water running to prevent freezing or because the pipes had frozen. Once the storage tank runs dry, the pipes can freeze and refilling the tank does not cure the problems. Rodney suggested that storage systems for mobile home parks might need to be made larger to account for the extra use. This was discussed with observations that it might make more sense to properly insulate the system and to install water meters at each unit to identify units where the water is left running. Putting in a large tank is expensive and there is a potential impact on the wastewater system.

